T1000, R1000, TR1000, A1000L and P1000L

1+1 Redundancy Interface for the P7000 & IBUH/ IBDH series of frequency converters, the ILAH series of Line Amplifiers and the UPC series of UpLink Power Controllers.

T1000L, R1000L, TR1000L for use with;
P7000 series IF/ L-Band Synthesised Converters

T1000H, R1000H, TR1000H for use with;
P7000 series IF/ SHF (S, C, X, Ku-Band) Synthesised Converters

T1000H(DBS) for use with;
P7018 series IF/ SHF (DBS-Band) Synthesised Converters

T1000HH, R1000HH for use with;
IBUH, IBDH series L/ SHF (S, C, X, Ku-Band) Block Converters

T1000HH(DBS) for use with;
IBUH series L to SHF (DBS-Band) Block UpConverters

T1000HH(Ka), R1000HH(Ka) for use with;
IBUH(Ka), IBDH(Ka) series L/ SHF (Ka-Band) Block Converters

A1000L for use with;
ILAH series L-Band Line Amplifiers

P1000, P1001L, 2L, 3L & 4L for use with;
UPC series UpLink Power Controllers

The **T1000, R1000, TR1000, A1000L & P1000series** 1+1 Redundancy Interface units are designed to take advantage of the redundancy control interface which is built in as a standard feature of the **P7000 series** of Synthesized converters, the **IBUH, IBDH series** of Block frequency converters, the **ILAH series** of Line amplifiers and the **UPC7000 series** of UpLink Power Controllers.

The system is designed to provide redundancy for a single-feed system, maintaining maximum availability whilst allowing routine maintenance and repair work to be carried out on the standby unit, without the normally associated down-time.

The system maintains one unit on-line whilst the other is held in hot standby, and allows the user to select the on-line unit. The redundancy unit is controlled from the front panel of the Converters/ Line Amplifiers/ AUPCs (Local mode) or via the Converter/ Line Amplifier/ AUPC RS232/ 485 link to a host computer (Remote mode). In remote mode, the on-line Converter/ Line Amplifier/ AUPC can be selected and monitored whilst keeping switch-over automatic in case of failure.
In automatic mode, the system monitors the Converter/ Line Amplifier/ AUPC alarm status and if a fault condition develops within the on-line unit, automatically switches traffic to the standby unit.

The **T1000** Redundancy Interface unit has connections for the Upconverter (Transmitter) or BUC series, the **R1000** for the DownConverter (Receiver) or BDC series and the **TR1000** for the combined Up/DownConverter unit. The **A1000L** has connections for the Line Amplifier. The **P1000Lseries** have connections for the UpLink Power Controllers.

The unit is standard 19" Rack Mountable and having no front panel controls (control is via the Frequency Converters/ Line Amplifiers/ AUPCs), can be mounted in the rear of the rack and connected with the cables provided. For P7000series L-Band Converters, L-Band Line Amplifiers and L-Band AUPC (fitted with DC & 10MHz pass-through options) the units are designed to pass the DC and 10MHz external reference frequency required to lock an LNB or BUC.

Peak Features

- High quality, matched IF, L-Band & RF (as appropriate) cable set included as standard
- Does not require rack 'front panel' space
- Fully compatible with Peak **P7000, IBUH, IBDH, ILAH and UPC7000series** of units

T1000, R1000, TR1000, A1000L & P1000Lseries - Typical Specification

IF, L-band & RF Interfaces

Frequency	
IF	50 to 200MHz
L-band/RF	DC to 14.5GHz
RF (DBS)	to 18.4GHz
RF (Ka)	to 31.0GHz
Connections for P7000 series Converters	
IF	50Ω, BNC (f). Option 1; 75Ω
L-band/ RF	50Ω, N-type (f)
Connections for IBUH, IBDH series Converters	
L-Band/ RF	50Ω, SMA (f)
Connections for IBUH(Ka), IBDH(Ka) series Converters	
L-Band	50Ω, SMA (f)
RF (Ka)	50Ω, K-Type (f) or 2.92mm (f)
Connections for ILAH series Line Amplifiers	
L-Band	50Ω, SMA (f)
Connections for UPC series AUPCs	
L-Band	50Ω, SMA (f)

Switch Element Parameters

Type	Co-axial, latching

Typical System Performance

The following gives the typical performance that can be expected from a system comprising Peak Converters/ Line Amplifiers/ AUPCs & using the high quality matched IF, L-band and RF cable sets;

Gain Flatness	±1dB full band, band specific
Insertion loss (excludes converter gain)	
IF	3.5dB
L-Band	0.5dB
S-Band	0.5dB
C-Band	1.5dB
X-Band	2.0dB
Ku-Band	2.5dB
DBS-Band	3.0dB
Ka-Band	3.5dB
10MHz	0.5dB
Switching speed	<800ms (from fault to switch completion)

General

Mechanical

Width	19”, standard rack mount
Height	1U (1.75”)
Depth	150mm (6”), plus connectors
Weight (nom.)	1.5kgs (3.3lbs)
Construction	Aluminium chassis

Environmental

Operating temp	0 to +50^{0}C
EMC	EN 55022 part B & EN 50082-1
Safety	EN 60950

Control System

Converter Interface	D-type, 9-way

Options

1) 75Ω IF connections.
7) DC & 10MHz pass-through (P1000L series only)

Rear Panel (T1000L example)